



# Your budgeting companion

October 2019



# Budget with confidence

This guide contains up-to-date information to help you forecast your energy budgets with confidence.

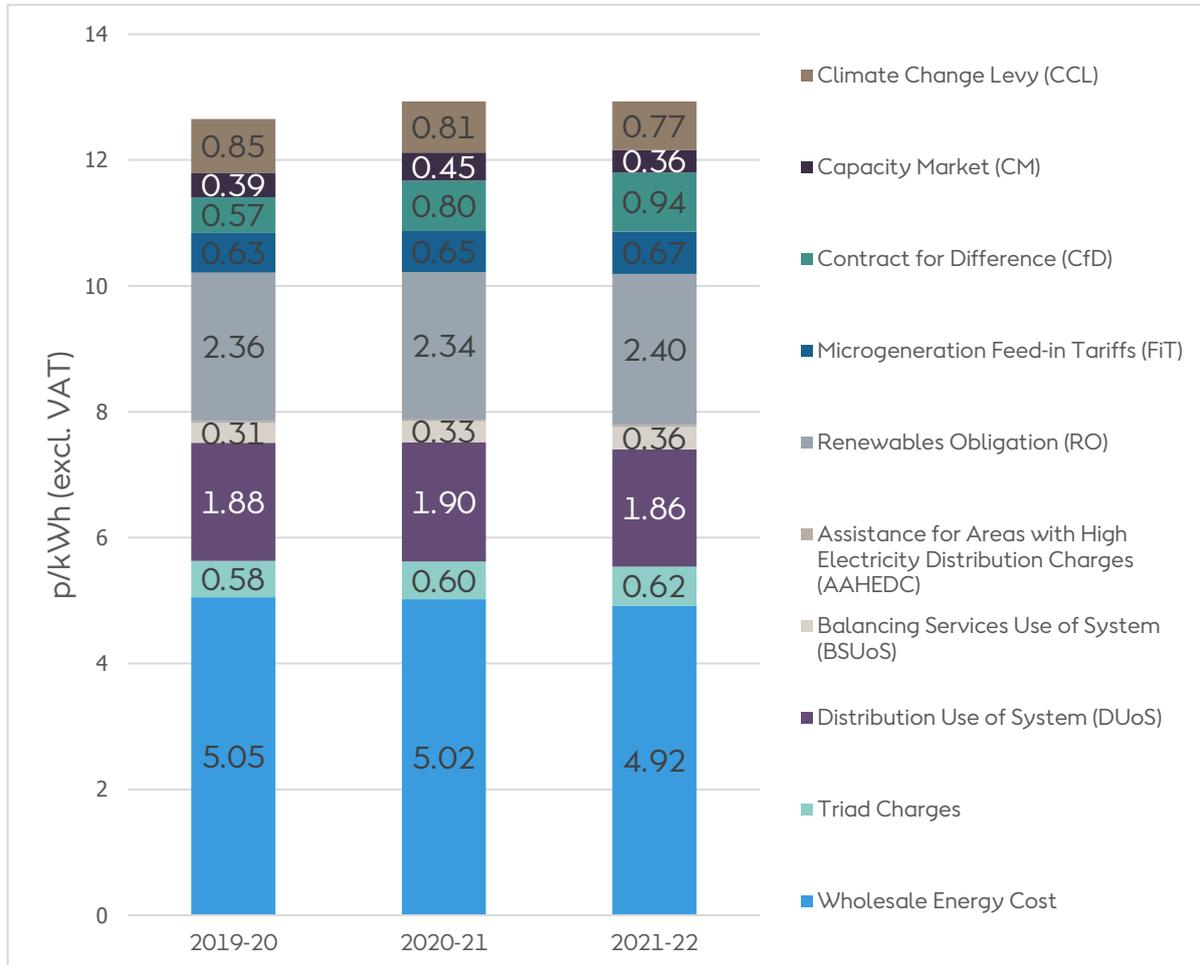
As well as forecasts of commodity and non-commodity elements of your invoice for electricity and gas, we've also included more information on each cost component and the factors driving changes.

If you'd like to talk to us about this report, you can either contact your Account Manager directly or email: [sales\\_uk\\_marketing@orsted.co.uk](mailto:sales_uk_marketing@orsted.co.uk)

# Your electricity costs forecasts

# In a nutshell

Forecast delivered electricity costs 2019-20 to 2021-22



## The headlines

- Delivered electricity costs are forecast to increase by **2%** in 2020-21 against 2019-20 levels. Wholesale costs are expected to fall slightly during this period and non-commodity costs are set to increase by **4%**.
- If forward wholesale markets remain as they are today, delivered electricity costs are set to be unchanged in 2021-22 against 2020-21 levels. Wholesale markets are predicted to fall by **2%** and if things remain unchanged, this will offset a forecast annual increase in non-commodity costs of about **1%**.
- Overall, the delivered electricity cost forecasts for 2019-20 to 2021-22 are around **2%** higher year-on-year than the last forecast issued in April 2019. This is due to rises in wholesale prices of around **5%** since that forecast was issued.

## Key drivers for 2020-21

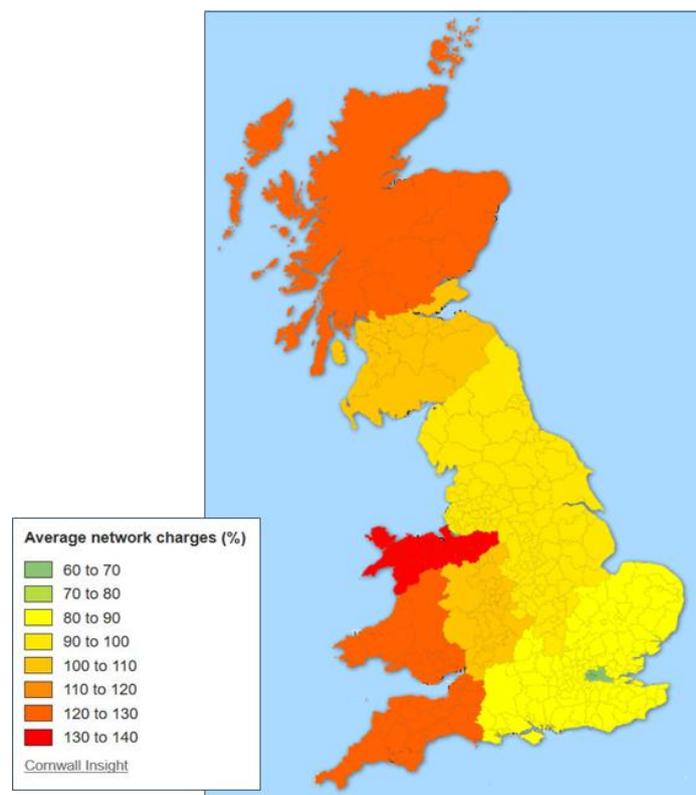
- Network costs are forecast to increase by **2%**, which is consistent with Ofgem's long-term price controls. However, there are regional variations and certain costs have increased above the line of inflation. Specifically, this applies to Triad transmission charges in Scotland and distribution charges in southern Scotland, southern England, Merseyside and North Wales.
- There will be an overall **5%** increase in policy costs. This is mainly due to an increase in renewable generation, supported through the Contracts for Difference (CfD) and Feed-in Tariff (FiT) schemes.
- In the medium-term, there will be changes to the structure of network tariffs and policy costs as electricity demand and generation become more diverse.

These changes include:

- **Ofgem's Targeted Charging Review Significant Code Review (TCR SCR)**, which is reviewing the long-term structure of network costs. Ofgem launched proposals that would change the residual charge element of transmission charges on a fixed rate basis rather than the current Triad basis from April 2023. If implemented, this proposal has the potential for significant rebalancing of transmission charges.
- **Ofgem's Network Access and Forward-Looking Charges SCR** is coordinating the significant reform of electricity access and charging arrangements across the GB network. Any reforms it introduces are expected from April 2023.
- **New investments in long distance power links**, which aims to lower balancing BSUoS costs.

## Network costs - regional trends 2019-2020

Average network charges for large electricity users (expressed as a % of the GB average):



- Network costs for distribution and transmission average **2.80p/kWh**. This is equivalent to just over **20%** of the total invoice (before VAT).
- The distribution component of network costs averages **1.88p/kWh**. Such costs are highest in Wales, North Scotland and South West England.
- The transmission component of network costs averages **0.58p/kWh**. Transmission costs are highest across Southern England.
- Northern Scotland has the highest distribution costs, but Merseyside and North Wales also have costs over **0.8p/kWh** above the GB average.
- Load switching and Triad avoidance can help mitigate costs. Please speak to your Account Manager for more information about our Triad warning service.

# Forecasts of electricity wholesale costs

Wholesale cost includes the market value of electricity for a period, costs for system losses, plus the supplier's costs and margin.

## What's driving wholesale cost?

- Overall, wholesale markets are up by around **5%** since the April 2019 issue of this report. The wholesale electricity market is currently **1% down** for 2020-21 compared to 2019-20, with falls of **2%** projected for 2021-22.
- Wholesale electricity markets have been volatile during summer 2019, with price spikes in April, July and September, followed by sharp falls.

## Forecast electricity wholesale costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
Wholesale costs (p/kWh)	5.05	5.02	4.92
Change (%)		-1%	-2%

# Forecasts of electricity network costs

Transporting energy across electricity and gas public networks to customer meters incurs cost. Suppliers recover these costs from their customers as 'network costs'.

For electricity, network costs include:

- Transmission Network Use of System (TNUoS or Triad)
- Distribution Use of System (DUoS)
- Balancing Services Use of System (BSUoS)
- Assistance for Areas with High Electricity Distribution Costs (AAHEDC)

Ofgem sets price controls for networks to beyond 2020. These controls are linked to inflation but can vary year-on-year if new investments are commissioned, tariffs are rebalanced or if other one-off events occur.

### Forecast TNUoS/Triad costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
Triad costs (p/kWh)	0.58	0.60	0.62
Change (%)	-	3%	3%

### Forecast DUoS costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
DUoS costs (p/kWh)	1.88	1.90	1.86
Change (%)	-	1%	-2%

### Forecast BSUoS costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
BSUoS costs (p/kWh)	0.31	0.33	0.36
Change (%)	-	6%	9%

### Forecast AAHEDC costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
AAHEDC costs (p/kWh)	0.03	0.03	0.03
Change (%)	-	1%	3%

Note: AAHEDC costs will increase in line with inflation each year, but annual increases are not significant enough to affect the unit cost data.

# Forecasts of electricity policy costs

Policy costs include the following:

Subsidising renewable electricity	Ensuring security of supply	Reducing energy consumption
Renewables Obligation, Microgeneration Feed-in Tariff, Contracts for Difference	Capacity Market	Climate Change Levy

- The Levy Control Framework sets an annual figure for the 'subsidy of renewable electricity' policy costs through to 2020-21, to a final value of **£7.6bn** (in 2011-12 prices). This is equivalent to around **25%** of forecast consumer spend on electricity in 2020-21.
- Since 2018, many electricity suppliers have exited the market, leaving debts for renewables policy schemes, including the Renewables Obligation and Microgeneration Feed-in Tariffs. These costs will need to be recovered by other suppliers. As the figures are yet to be confirmed, they are excluded from the tables in this forecast.

## Forecast Renewables Obligation (RO) costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
RO (p/kWh)	2.36	2.34	2.40
Change (%)	-	-1%	3%

## Forecast Microgeneration Feed-in Tariff (FiT) costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
FiT (p/kWh)	0.63	0.65	0.67
Change (%)	-	3%	3%

## Forecast Contracts for Difference (CfD) costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
CfD FiT (p/kWh)	0.57	0.80	0.94
Change (%)	-	42%	17%

### Forecast Capacity Market (CM) costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
CM (p/kWh)	0.39	0.45	0.36
Change (%)	-	15%	-20%

The table below shows the main Climate Change Levy (CCL) rate at April 2019 and April 2020

Taxable commodity	Rate from 1 April 2019	Rate from 1 April 2020
Electricity	0.00847 (£/kWh)	0.00811 (£/kWh)
Natural gas	0.00339 (£/kWh)	0.00406 (£/kWh)
LPG	0.02175 (£ per kg)	0.02175 (£ per kg)
Any other taxable commodity	0.02653 (£ per kg)	0.03174 (£ per kg)

### Forecast CCL costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
CCL (p/kWh)	0.85	0.81	0.77
Change (%)	-	-5%	-5%

## Transmission Network Use of System (TNUoS)/Triad charges

- Each year, licenced suppliers must pay TNUoS costs to National Grid to cover its costs of delivering electricity across the network. For half-hourly electricity customers, these are based on the use of electricity during the three half hour periods of peak system demand between November and February (a 'Triad' period). Charges are calculated based on a customer's average demand across the three periods.
- The peak periods typically fall between 4pm and 7pm on weekdays. This is the time that industrial consumption often coincides with higher domestic consumption. National Grid forecasts Triad charges up to five years in advance. Load switching and Triad avoidance can help mitigate costs. Please speak to your Account Manager for more information about our Triad warning service.

### What's driving them?

- There have been reforms to transmission charging for embedded generators, which has slowed a recent trend of cost increases that were above inflation.
- These reforms are cutting the amount that embedded generators will receive by a third per year, over the three years ending 2020-21.
- Due to a technical change in the treatment of charges for small generators in Scotland, an above inflation increase in TNUoS/Triad charges is forecast for 2020-21, compared to 2019-20.

You can read more about TNUoS and Triads [here](#).

## Distribution Use of System (DUoS) costs

DUoS relates to the cost of maintaining the regional networks that transport electricity from the local sub-station to the end customer. This infrastructure is owned and operated by the Distribution Network Operator (DNO) in each region. DUoS costs are charged to generators and suppliers, and then recovered from electricity users. Each DNO publishes a forecast of costs in its region and suppliers use this as a basis for DUoS calculations.

### What's driving them?

- In 2020-21, DUoS costs are expected to be almost unchanged with a **1%** average increase.
- Latest revenue statements from DNOs indicate that in 2020-21, DUoS costs will fall across most regions. This is consistent with Ofgem's price controls.

You can read more about DUoS [here](#).

## Balancing Services Use of System (BSUoS) costs

BSUoS is a charge that National Grid ESO levies to balance the electricity system and recover the costs incurred as the system operator. National Grid publishes BSUoS forecasts for the current and next charging year.

### What's driving BSUoS costs?

- BSUoS costs are forecast to average just over **0.30p/kWh** annually through to 2021-22.
- BSUoS costs have been rising recently due to increased constraints on the transmission network in England and Wales since Autumn 2018.
- Once consistently operating, the [Western Link](#) will enable more renewable power to flow from Scotland into England and reduce constraint costs recovered through BSUoS.

You can read more about BSUoS [here](#).

### Assistance for Areas with High Electricity Distribution Costs (AAHEDC)

- The AAHEDC scheme is administered by National Grid and provides financial assistance to areas of the country with high distribution costs. Currently, the North of Scotland is the only area specified to receive assistance. All electricity suppliers are charged an amount by National Grid, and this is passed to Scottish Hydro Electric Power Distribution Ltd to allow a reduction in costs for this area.
- Suppliers must pay National Grid a published amount based on total supplied volume. The cost is then passed on to all customers as a £/MWh charge.
- Draft AAHEDC costs are published in March (ahead of the start of the charging year) and finalised in July.

### What's driving AAHEDC?

- For 2020-21 and 2021-22, AAHEDC is forecast to increase in line with inflation, consistent with its regulatory formula.

You can read more about AAHEDC [here](#).

# More about electricity policy costs

## Renewables Obligation (RO)

- RO is a government policy to encourage the development of renewable electricity generating capacity in the UK. The RO scheme is now closed to new capacity.
- RO places an obligation on electricity suppliers to source an increasing proportion of the electricity they supply from renewable sources. This is measured through the expected production of tradable Renewables Obligation Certificates (ROCs) each year.
- Exemptions are available for some energy intensive users.

### What's driving it?

- BEIS has set the target for the RO at **0.484 ROCs/MWh** in GB for 2019-20. This has increased from **0.468 ROCs/MWh** in 2018-19. The RO target includes adjustments to reflect Energy Intensive Industry (EII) exemptions, which were implemented from 1 April 2018.
- The 2020-21 RO target will fall to **0.471 ROCs/MWh** in GB, as rising demand increases the charging base over which the costs of the RO can be recovered.
- RO buy out values increase in line with inflation. Values are also affected by the relationship between forecast total availability of certificates and electricity consumption (outside the EII sectors).

## Microgeneration Feed-in Tariff (FiT)

- FiT is a government programme to support the uptake of a range of small-scale renewable and low-carbon generation technologies. The tariff is then paid to anyone who installs a renewable energy system producing electricity. Tariffs are paid for electricity that is generated, with a bonus for any energy exported to the grid.
- Ørsted uses latest industry information to produce an estimate of what the actual cost will be, translated into a £/MWh charge. This estimate is then applied to your metered consumption and included in the calculation of your monthly invoice. FiT costs vary by quarter with unit rates typically higher in the summer than the winter. This reflects higher solar output and a lower demand base from which to recover costs.
- Exemptions are available for some energy intensive users.

### What's driving it?

- Costs are tied to inflation linked increases. The scheme closed to new capacity on 31 March 2019.

You can read more about FiT [here](#).

## Contracts for Difference (CfD)

- CfD is a subsidy for large-scale low carbon generation projects introduced after 2015. This tops up wholesale power prices to a target level for different generation projects.
- Costs vary by quarter depending on the volume of generation to be subsidised and the amount needed for top-up payments. The CfD scheme requires all suppliers to pay a levy to fund this ongoing development. CfD costs are passed onto all electricity customers through their invoices

### What's driving it?

- Unit rates rise as new capacity joins the scheme.
- As wholesale costs rise and fall, CfD scheme costs trend in the opposite direction. This is because lower or greater top-up payments to the market electricity price will be payable to generators.

You can read more about CfD costs [here](#).

## Capacity Market (CM)

- The Capacity Market is a government scheme to ensure security of electricity supply. It is intended to incentivise investment in more sustainable, low-carbon electricity capacity at the least cost for energy consumers. This is needed to help secure electricity supplies for the future.
- Generators are paid a 'per MW price' for the capacity they can provide to the market. This capacity needs to be available when providers are called upon by National Grid ESO at any time during the contracted period.
- Capacity is procured in technology neutral auctions four years and one year ahead of delivery. Contracts are available for one year, three years for refurbishing work and 15-years for new build.

### What's driving it?

- In November 2018, the General Court of the EU annulled the European Commission's State Aid approval for the CM. As a result, supplier charges stopped immediately. On 24 October 2019, it was announced that the scheme would be re-instated from November 2018.
- Electricity suppliers will receive an invoice for the standstill period. The invoice will be a single payment to recover all outstanding funds. 'Business as Usual' payments will also be required from suppliers on the first working day of the month.

You can read more about Capacity Market [here](#).

## Climate Change Levy (CCL)

CCL is a government environmental tax on energy delivered to non-domestic energy users. HMRC requires all suppliers to pay a levy to fund CCL. This cost is then passed on to all electricity customers through their invoices. The CCL rate goes up in line with inflation every year and is chargeable on a consumption basis, per £/kWh.

## Who pays CCL?

The following sectors must pay CCL:

- Industrial
- Commercial
- Agricultural
- Public services

The following are excluded from paying CCL:

- Business that use small amounts of energy
- Domestic energy users
- Charities engaged in non-commercial activities

## Reduced rate

You can get a reduction on the main rates of CCL if you're an energy intensive business and have entered into a Climate Change Agreement (CCA) with the Environment Agency.

## There will be an increase to the Climate Change Levy (CCL) from April 2019

As part of the 2016 Budget, the government announced that from April 2019, the current Carbon Reduction Commitment (CRC) scheme will close and be replaced by CCL. This means that tax which is usually recovered through CRC would be collected through CCL instead.

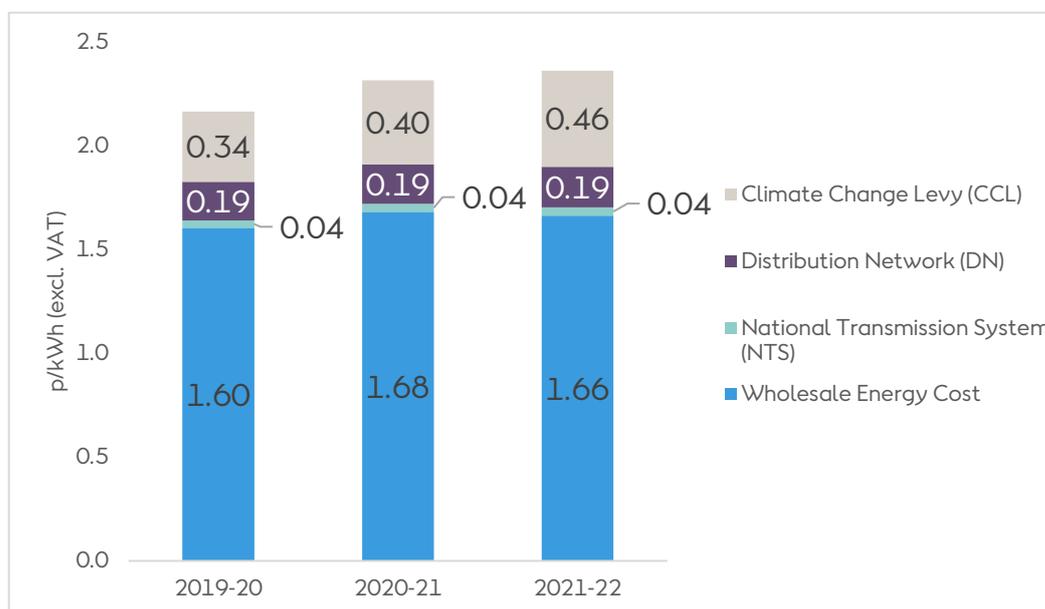
## How will this affect your electricity invoice?

As a result, CCL charges increased by **47%** in April 2019. The CRC scheme has now expired for energy consumption after 31 March 2019. However, all obligations incurred under it up to that date must be complied with.

# Your gas costs forecasts

# In a nutshell

## Forecast delivered gas costs 2019-20 to 2021-22



### Headlines

- A **7%** increase is forecast for delivered gas costs in 2020-21. This is because a **5%** rise in wholesale costs will be combined with an increase of **20%** in CCL for the second year in a row.
- If forward wholesale markets retain their current levels and National Transmission System (NTS), and Distribution Network (DN) remain as forecast, a **15%** rise projected for CCL will be the main driver of another **2%** forecast delivered cost rise for 2021-22 versus 2020-21.

### Key drivers for 2019-20

- The wholesale market is in 'contango'. This means that prices are increasing the further into the future the gas is to be delivered.
- Increases in network costs are in line with inflation, which reflect Ofgem's long-term price controls.
- Above inflation increases in CCL are projected following a restructuring of this levy to focus on the carbon content of fuels burned.

# Forecasts of wholesale gas costs

Wholesale gas costs includes the market value of gas for a period, plus the supplier's costs and margin in providing it to the customer.

## What's driving it?

- As with electricity, wholesale gas markets have cycled during the summer of 2019, with three price spikes followed by periods of sharp decline.
- The wholesale gas market is priced **5%** higher for 2020-21 than 2019-20 and **1%** lower for the year after.

## Forecast gas wholesale costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
Wholesale energy cost (p/kWh)	1.60	1.68	1.66
Change (%)		5%	-1%

# Forecasts of gas transportation costs

- Transportation costs are levied on users of the gas public networks to transport volumes to the customer's meter. Gas transportation costs relate to National Transmission System (NTS) costs and regional Distribution Network (DN) costs. The latter are also sometimes referred to as Local Distribution Zone (LDZ) costs.
- Transportation costs have **fixed daily**, **commodity** and **capacity** components. In this report, figures are presented on a volumetric, averaged basis.
- Commodity costs are based on the volume of gas consumed while capacity costs are based on the maximum amount of gas expected to be used by a site on any day in the year.
- Price controls for networks are set to beyond 2020 by Ofgem. They are inflation-linked but can vary year-on-year depending on the investment profile of the network company, if tariffs are rebalanced or if other one-off events occur.

### Forecast gas National Transmission System (NTS) costs 2019-20 to 2021-22

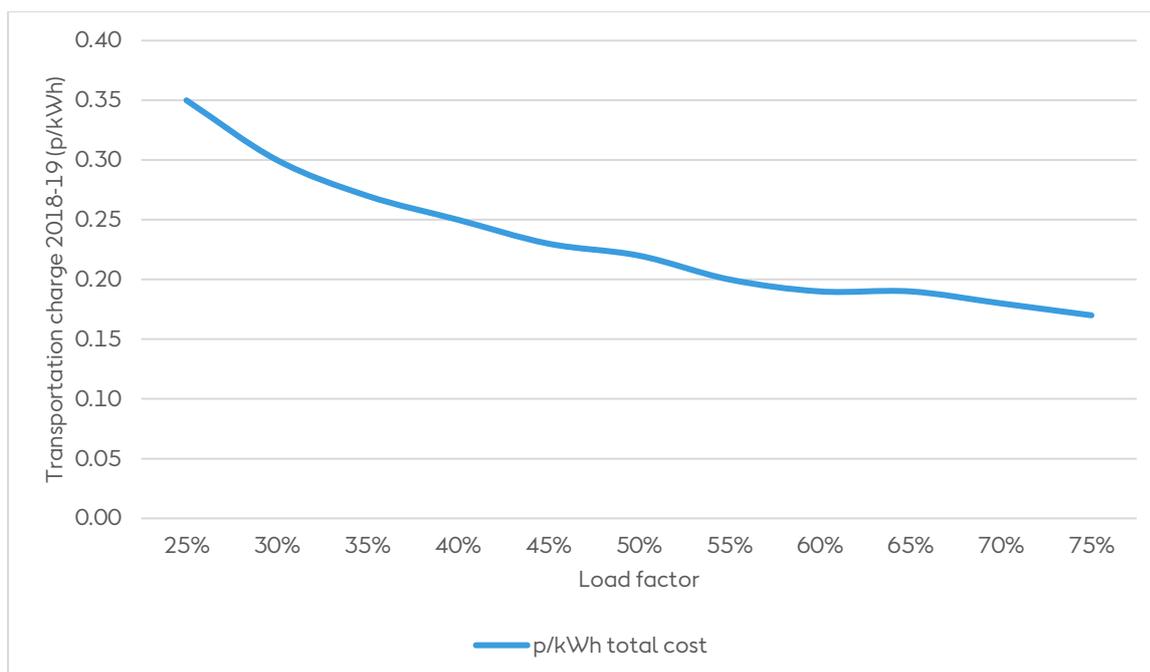
	2019-20	2020-21	2021-22
NTS costs (p/kWh)	0.04	0.04	0.04
Change (%)		6%	6%

### Forecast gas Distribution Network (DN) costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
DN costs (p/kWh)	0.19	0.19	0.19
Change (%)		3%	2%

Note: The original data has been rounded to two decimal places as shown above. Percentage changes are based on the original data.

### Average transportation costs by load factor



# Forecasts of gas policy costs

## Forecast gas CCL costs 2019-20 to 2021-22

	2019-20	2020-21	2021-22
CCL (p/kWh)	0.34	0.41	0.47
Change (%)	-	20%	15%

## More about gas transportation costs

### National Transmission System (NTS) costs

- NTS costs account for the costs of shipping gas in bulk around the country. They include **commodity** and **capacity** elements.
- National Grid Gas Transmission (NGGT) produces an annual statement of costs for the coming year and forecasts the revenues it expects to earn from its costs in the years thereafter.

### What's driving them?

- NGGT's long-term revenue statement, issued in May 2019, suggests that NTS charges will increase in real terms in 2020-21. For periods 2021-22 and beyond, the revenue changes will depend on the outcome of the RIIO-T2 charging regime. Currently they are forecast to be static, pending the resolution of the new regime.
- NTS costs will still only account for around **1.8%** of delivered gas costs, even after this increase.

## Distribution Network/Local Distribution Zone (LDZ) costs

- These costs are levied on suppliers to cover the costs of the lower pressure gas Distribution Networks (DNs) to flow gas to the customer's meters.
- Each of the four distribution companies publishes annual charging statements covering the eight DNs they own collectively. They also provide annual forecasts of expected revenues in future years.

### What's driving them?

- DN costs are forecast to be unchanged in 2020-21 compared to 2019-20.
- There is major uncertainty around charges beyond 2020-21 as they fall in the next gas price control (R1IO-GD2) period. Allowed revenues for this period have not yet been set, with the companies still formulating business plans for the period.

## Load factor and average transportation

- Gas transportation costs comprise capacity costs (related to peak daily consumption) and commodity costs (related to annual volume).
- The relationship between peak daily consumption and annual consumption is known as the 'load factor' and is expressed as a percentage. The higher the load factor, the more consistent the use of gas through the year. Higher load factors tend to reflect a process use (heat to change the state of matter) while lower load factors tend to reflect space heating, where the requirement is primarily temperature related.
- Lower load factor sites tend to attract higher average costs for transportation, meaning that reducing gas consumption peaks may yield a saving in these costs on a unit base.

# More about gas policy costs

## Climate Change Levy (CCL)

### What is it?

- CCL is administered by HMRC and is designed to incentivise businesses to consume less energy and therefore reduce greenhouse gas emissions.
- CCL is charged to most non-domestic consumers of energy in the UK.
- Discounts and exemptions are available for very small users and certain manufacturing processes.
- CCL costs are provided up to four years in advance by HMRC.

### What's driving it?

- CCL costs have increased in line with inflation since the scheme started
- April 2019 saw a revamped CCL rise by **67%** as CRC energy efficiency scheme costs transitioned to be recovered through CCL instead. In future years, gas CCL charges will rise by above inflation as the levy is refocused on the carbon content of the fuels being burned.

